

Recent IBM Patents

The following patents were recently issued by the countries in which the inventions were made.

France

7,308,009 G. Lebizay and A. Couder
7,517,189 D. Esteban and J. Menez
7,533,884 A. Croisier

Time-Division Multiplex Switching System
Process for Block Quantizing an Electrical Signal and Device for Implementing Said Process
Device for Reproducing the Charge Stored in an Input Capacitor in a Plurality of Output Capacitors

Germany

2,131,848 V. Goetze and F. Tsui
2,155,292 W. I. Rehwald
2,314,261 A. Bohg

Improvements Relating to Text Processing Apparatus
Magnetic Data Storage Disk
Method for Measuring Voltages

United Kingdom

1,533,499 B. O. Key, T. E. Robinson, and J. Smith
1,536,046 M. Dye and C. J. Hyde

Improvements Relating to Text Processing Apparatus
Data Processing System Power Control

United States

4,131,933 R. L. Agard, T. E. Bocinski, L. E. Brearley, and W. R. Yaple
4,131,940 J. T. Moyer
4,132,318 S. S. Wang and M. A. Wesley
4,132,571 J. J. Cuomo, T. H. DiStefano, and R. Rosenberg
4,132,586 P. M. Schaible, G. C. Schwartz, and L. B. Zielinski
4,132,614 J. J. Cuomo, R. J. Gambino, and J. M. E. Harper
4,132,818 R. E. Chappelow and H. J. Hunkele
4,132,864 J. S. Feng
4,132,890 J. L. Garcia, P. Y. Hu, and T. N. Waller
4,133,011 F. Kurzweil, Jr.
4,133,610 W. J. Bernardelli, A. H. Caudill, and J. A. Thompson
4,134,066 M. J. Vogel and S. F. Vogel
4,134,581 F. W. Johnson, C. A. Queener, and J. C. Rogers
4,135,097 J. L. Forneris, W. W. Hicks, J. H. Keller, C. M. McKenna, and J. A. Seiramarco
4,135,954 A. W. Chang and A. K. Gaind
4,135,998 J. J. Gniewek, T. M. Reith, M. J. Sullivan, and J. E. White
4,136,290 A. Davidson and D. J. Herrell
4,136,293 T. R. Patel
4,136,345 M. H. Neville and T. S. Taylor
4,136,385 P. M. Cannon, A. R. Heller, and R. M. Smith
4,136,386 E. J. Annunziata, R. S. James, and K. G. Tan
4,136,395 R. A. Kolpek, D. L. MacDuffee, and W. S. Rosenbaum
4,136,525 J. A. Van Vechten

Quick Disconnect Card-on-Board Electronic Package Assembly
Channel Data Buffer Apparatus for a Digital Data Processing System
Asymmetric Six-Degree-of-Freedom Force-Transducer System for a Computer-Controlled Manipulator System
Growth of Polycrystalline Semiconductor Film with Intermetallic Nucleating Layer
Selective Dry Etching of Substrates
Etching by Sputtering From an Intermetallic Target to Form Negative Metallic Ions Which Produce Etching of a Juxtaposed Substrate
Method Forming Deposits from Reactive Gases
Digital Measurement of the DC Value in an AC Signal Adapted to Telephone Off-Hook Detection
Self Adjusting Tachometer
Sampled Data Positioning System Employing a Model of the Physical System for Time Optimal Control
Optimum Preclean Corona Current for Eliminating the Accumulation of Contaminants from Developers
Wafer Indexing System Using a Grid Pattern and Coding and Orientation Marks in Each Grid Cell
Virtual Bin Collator Control
Ion Implantation Apparatus for Controlling the Surface Potential of a Target Surface
Method for Fabricating Self-Aligned Semiconductor Devices Utilizing Selectively Etchable Masking Layers
Method for Forming Pt-Si Schottky Barrier Contact
Josephson Self Gating and Circuit and Latch Circuit
Multi-Actuator System Using Single Magnetic Circuit
Object Deflection Sensor
Synonym Control Means for Multiple Virtual Storage Systems
Backing Storage Access Coordination in a Multi-Processor System
System for Automatically Proofreading a Document
Dielectric Refrigerator Using Orientable Defect Dipoles

4,136,861	W. Goff, Jr.	Paper Guide Means for Reverse Feed Sheet Paper Separation Device
4,136,862	B. H. Kunz, M. F. Shlatz, and L. M. Simson	Paper Orientation for Duplexing and Collating
4,137,103	S. R. Mader, B. J. Masters, and H. B. Pogge	Silicon Integrated Circuit Region Containing Implanted Arsenic and Germanium
4,137,211	R. W. Angelo, E. J. Armstrong, and R. Bock	Wire Coating Solution
4,137,427	M. Choquet, D. Pilost, and A. Vadé	Synchronizing Device for the Receiver Clock of a Data Transmission System Using PSK Modulation
4,137,459	D. E. Albrecht, S. K. Doran, M. S. Michail, and H. S. Yourke	Method and Apparatus for Applying Focus Correction in E-Beam System
4,137,464	L. G. Heller and L. M. Terman	Charge-Transfer Binary Search Generating Circuit
4,137,542	L. L. Chang and L. Esaki	Semiconductor Structure
4,137,991	R. L. Melcher and R. J. von Gutfeld	Clamped Acoustic Elastic Wave Generator
4,138,644	D. N. Godard and A. T. Milewski	Adaptive Phase Detection Method and Apparatus
4,138,688	R. S. Heard, J. D. Hill, and D. W. Phillips	Method and Apparatus for Automatically Controlling the Inclination of Patterns in Ink Jet Printers
4,138,692	R. G. Meeker, W. J. Scanlon, and Z. Segal	Gas Encapsulated Cooling Module
4,138,728	J. S. Tung	Electronic Tachometer with Variable Bandwidth Differentiator
4,138,782	F. H. De La Moneda and H. N. Kotecha	Inverter with Improved Load Line Characteristic
4,139,276	N. J. Clecak, B. D. Grant, A. B. Jaffe, and G. S. Keller	Electrochromic Display Devices Comprising Substituted Fluorene Compounds
4,139,442	J. A. Bondur and H. S. Pogge	Reactive Ion Etching Method for Producing Deep Dielectric Isolation in Silicon
4,139,904	A. K. Chandra and C.-K. Wong	Bubble Lattice Files with Selected Access Channel Positioning
4,139,910	N. G. Anantha, F. Y. Chang, and B. J. Rubin	Charge Coupled Device Memory with Method of Doubled Storage Capacity and Independent of Process Parameters and Temperature
4,139,935	C. L. Bertin and F. H. De La Moneda	Over Voltage Protective Device and Circuits for Insulated Gate Transistors
4,140,921	P. S. Balasubramanian, S. B. Greenspan, and K. Venkataraman	Generalized Performance Power Optimized PLA Circuits
4,140,967	P. S. Balasubramanian, C. R. Bertin, and S. B. Greenspan	Merged Array PLA Device, Circuit, Fabrication Method and Testing Technique
4,141,005	B. R. Bonner and N. B. Sliz	Data Format Converting Apparatus for Use in a Digital Data Processor
4,141,020	J. K. Howard, W. D. Rosenberg, and J. F. White	Intermetallic Aluminum-Transition Metal Compound Schottky Contact
4,141,049	R. B. Watrous	Loading Mechanism for Negative Pressure Sliders
4,141,546	C. A. Queener	Mini-Collator/Sorter
4,141,648	R. E. Gaitten and G. L. Smith	Photoconductor Charging Technique
4,141,803	D. J. Barclay and W. M. Morgan	Method and Composition for Electroplating Chromium and its Alloys and the Method of Manufacture of the Composition
4,142,071	A. Croisier, D. Esteban, and C. Galand	Quantizing Process with Dynamic Allocation of the Available Bit Resources and Device for Implementing Said Process
4,142,106	R. T. Toth	Transfer Printing Ribbon Error Detection System
4,142,107	M. Hatzakis, C. Lapadula, and B. J. Lin	Resist Development Control System
4,142,174	C. L. Chen and M. Y. Hsiao	High Speed Decoding of Reed-Solomon Codes
4,142,175	N. M. Herbst, C. N. Liu, and H. A. Panissidi	Pressure Sensing Device and Transducer Arrangement
4,142,199	V. M. Simi and D. A. Soderman	Bucket Brigade Device and Process
4,142,234	B. M. Bean, K. N. Langston, R. L. Partridge, and K.-B. K. Sy	Bias Filter Memory for Filtering Out Unnecessary Interrogations of Cache Directories in a Multiprocessor System
4,142,242	H. P. Duvochel, R. E. Kuhne, and B. P. Laurent	Multiplier Accumulator
4,142,250	G. E. Keefe and Y. S. Lin	Bubble Translation Switch Using Magnetic Charged Walls
4,142,661	M. L. Nettles and P. A. Stevenson	Differential Flow Guiding Air Bearing
4,142,783	E. M. Engler and F. B. Kaufman	Reversible Electrochromic Display Device Having Memory
4,143,259	C. D. Hurd and R. P. Loomis	Method of Fabricating Stainless Steel Aluminum Rotor
4,143,393	D. J. DiMaria and D. R. Young	High Field Capacitor Structure Employing a Carrier Trapping Region
4,143,408	B. W. McGinnis and J. A. Weidenhammer	External Selector and Internal Controller for Flexible Disc Stack
4,144,099	H. D. Edmonds and G. Markovits	High Performance Silicon Wafer and Fabrication Process
4,144,101	V. I. Rideout	Process for Providing Self-Aligned Doping Regions by Ion-Implantation and Lift-Off
4,144,447	B. C. Fossum, K. J. Markson, P. C. Schloss, and J. W. Wing	Interval Timer

4,144,448	E. C. Pisciotta and T. G. Thornock	Asynchronous Validity Checking System and Method for Monitoring Clock Signals on Separate Electrical Conductors
4,144,465	S. M. Faris	Self-Resetting Josephson Device Circuit
4,144,466	M. R. Hatch	Damping Vibrations in Voice Coil Actuator
4,144,493	J. H. Lee, B. K. S. Lessmann, and A. V. Satya	Integrated Circuit Test Structure
4,144,539	N. R. Davie and J. C. Lambiotte	Feedback Control for Laser Discharge System
4,144,563	D. A. Heuer, P. C. Schloss, and L. L. Schroeder	Microprocessor System
4,144,565	M. A. Bouknecht and L. P. Vergari	Input/Output Interface Connector Circuit for Repowering and Isolation
4,144,584	K. E. Powell	Remote Card Operated Terminal Extensor Circuitry
4,144,636	P. J. Burkhardt and M. P. Poponiak	Method for Manufacture of a Moisture Sensor
4,145,181	E. G. Edwards and C. E. Peterson	Apparatus to Facilitate Jam Recovery and Hot Roll Reversal in a Fusing Assembly
4,145,700	C. G. Jambotkar	Power Field Effect Transistors
4,145,721	P. L. Beaudouin and L. P. Debord	Photosensitive Self Scan Array with Noise Reduction
4,145,725	C. N. Wallis	Electromagnetic Actuator
4,146,810	W. W. Hicks, J. H. Keller, and J. H. Koestner	Radiation Heated Acceleration
4,146,874	R. A. Ide and J. D. Wilcox	Method and Apparatus for Addressing a Character Generator
4,146,876	A. G. Arellano, P. J. Metz, and C. V. Wilbur	Matrix Addressed Electrochromic Display
4,146,879	L. W. Nicholson and J. L. Regehr	Visual Display with Column Separators
4,146,901	R. L. Fowler	Apparatus for Recording Information on a Recording Surface
4,146,909	R. L. Beckenhauer and W. J. Schaeuble	Sync Pattern Encoding System for Run-Length Limited Codes
4,147,299	M. E. Freeman	Air Flow System for a Disk File
4,147,435	M. A. Habegger	Interferometric Process and Apparatus for the Measurement of the Etch Rate of Opaque Surfaces
4,147,667	J. P. Chevallier, C. R. Guarnieri, A. Onton, and H. Wieder	Photoconductor for GaAs Laser Addressed Devices
4,147,834	H. E. Munzel and C. A. Queener	Fluorinated Polymer Coated Carrier Particles
4,147,958	W. E. Ahearn and K. C. Park	Multicolor Gas Discharge Display Memory Panel
4,148,045	F. F. Fang and K. K. Shih	Multicolor Light Emitting Diode Array
4,149,084	H. L. Arndt, J. H. Keller, C. M. McKenna, and J. R. Winnard	Apparatus for Maintaining Ion Bombardment Beam Under Improved Vacuum Condition
4,149,085	D. E. Davis, E. V. Weber, M. C. Williams and O. C. Woodard	Automatic Overlay Measurements Using an Electronic Beam System as a Measurement Tool
4,149,097	S. M. Faris	Waveform Transition Sensitive Josephson Junction Circuit Having Sense Bus and Logic Applications
4,149,108	I. F. Chang	Multistable Cathode Ray Type Storage Display Device
4,149,128	J. M. White	Charge Transfer Device Transversal Filter Having Electronically Controllable Weighting Factors
4,149,184	G. M. Giddings, G. G. Langdon, Jr., A. S. Malowany, and R. Williams	Multi-Color Video Display Systems Using More than One Signal Source
4,149,204	P. T. Marino, F. B. Shelledy, and E. W. Smathers	Minor Bit Reduction on a Magnetic Head
4,149,207	T. H. Porter, Jr. and R. E. Schopp	Cartridge and Flexible Magnetic Disk Assembly
4,149,218	F. P. Carrubba and P. E. Stuckert	Minimum Delay Module Assembly
4,149,243	D. E. Wallis	Distributed Control Architecture with Post and Wait Logic
4,149,245	P. M. Gannon and K.-B. K. Sy	High Speed Store Request Processing Control
4,149,266	S. Konishi	Discrimination of Bubble State by Bubble Collapse
4,149,906	F. H. De La Moneda	Process for Fabrication of Merged Transistor Logic (MTL) Cells
4,150,363	T. N. Criscimagna and J. B. Trushell	Reduced Connection for 22 Character Gas Panel
4,150,384	K.A. Meece	Method and Apparatus for Synchronizing Charging of Droplets of a Pressurized Conductive Liquid Stream
4,150,400	K. Y. Wong	Methods of a Coarse-Scan/Fine-Print Character Reproduction with Compression
4,150,479	P. D. Losee and N. L. Robinson	Method of Making Magnetic Head Cores with Cant Angles
4,150,619	W. Hasler, E. Lennemann, and S. Padmanabhan	Printer for Different Character Densities
4,150,757	R. J. Laybourn and J. J. Lynott	Plural Document Stacking and Subsequent Selective Stack Transporting Apparatus
4,150,985	M. D. Shattuck	Image Forming Process Involving Phase Change
4,150,987	H. W. Anderson and M. T. Moore	Hydrazone Containing Charge Transport Element and Photoconductive Process of Using Same
4,151,010	G. R. Goth	Forming Adjacent Impurity Regions in a Semiconductor by Oxide Masking

4,151,425	M. Cappa	Voltage Sequencing Circuit for Sequencing Voltages to an Electrical Device
4,151,535	E. C. Uberbacher	Electro-Erosion Head and Manufacturing Method
4,151,603	L. A. Gladstein	Precharged FET ROS Array
4,151,605	S. M. Faris	Superconducting Memory Array Configurations which Avoid Spurious Half-Select Condition in Unselected Cells of the Array
4,152,182	R. F. Rutz	Process for Producing Electronic Grade Aluminum Nitride Films Utilizing the Reduction of Aluminum Oxide
4,152,467	W. A. Alpaugh and T. D. Zucconi	Electroless Copper Plating Process with Dissolved Oxygen Maintained in Bath
4,152,649	M. Choquet	Channel Equalization Apparatus and Method Using the Fourier Transform Technique
4,152,736	R. E. Jansen, W. A. Lopour, and L. P. Segar	Magnetic Disk File
4,152,764	W. D. Connors and D. M. Junod	Floating-Priority Storage Control for Processors in a Multi-Processor System
4,152,781	F. J. Aichelmann, Jr.	Multiplexed and Interlaced Charge-Coupled Serial-Parallel-Serial Memory Device
4,153,107	V. W. Antonetti and O. R. Gupta	Temperature Equalizing Element for a Conduction Cooling Module
4,153,486	G. R. Srinivasan	Silicon Tetrachloride Epitaxial Process for Producing Very Sharp Autodoping Profiles and Very Low Defect Densities on Substrates with High Concentration Buried Impurity Layers Utilizing a Preheating in Hydrogen
4,153,491	W. R. Swiss and W. S. Young	Accelerated Sintering for a Green Ceramic Sheet
4,153,528	R. H. Dykeman and M.-C. Wong	Contoured Quartz Anode Plate
4,153,945	E. J. Actor and R. F. Kantner	Multiplexed Control Subsystem for Sensor Based Systems
4,153,950	E. J. Nosowicz and R. C. Pearson	Data Bit Assembler
4,153,988	V. Y. Doo	High Performance Integrated Circuit Semiconductor Package and Method of Making
4,154,575	E. G. Edwards, M. R. Headrick, and C. E. Peterson	Hot Roll Fuser Roll Closure Apparatus
4,154,626	R. C. Joy, I. E. Magdo, and A. Phillips, Jr.	Process of Making Field Effect Transistor Having Improved Threshold Stability by Ion-Implantation
4,154,874	J. K. Howard and P. S. Ho	Method for Forming Intermetallic Layers in Thin Films for Improved Electromigration Resistance
4,155,030	I. Chang	Multicolor Display Device Using Electroluminescent Phosphor Screen with Internal Memory and High Resolution
4,155,109	L. R. Finch, J. D. Roche, and P. M. Rogers	Planar Board and Card-On-Board Electronic Package Assembly
4,155,117	M. J. Mitchell, Jr. and H. L. Page	Synchronizing Channel-To-Channel Adapter
4,155,121	C. G. Jambotkar	Redundant Charge-Coupled Device and Method
4,155,768	G. M. Adams, R. D. Balanson, and C. D. Snyder	Waterfast Ink for Use in Ink Jet Printing
4,155,775	W. A. Alpaugh, M. J. Canestaro, and T. L. Ellis	Cleaning of High Aspect Ratio Through Holes in Multilayer Printed Circuit Boards
4,155,778	I. Antipov	Forming Semiconductor Devices having Ion Implanted and Diffused Regions
4,155,785	J. J. Cuomo, T. H. DiStefano, and R. Rosenberg	Process of Making a Radiation Responsive Device
4,155,866	M. Berkenblit, D. C. Green, F. B. Kaufman, and A. Reisman	Method of Controlling Silicon Wafer Etching Rates-Utilizing a Diazine Catalyzed Etchant
4,156,206	L. D. Comerford, R. A. Laff, and E. G. Lean	Grating Coupled Waveguide Laser Apparatus
4,156,280	R. K. Griess	Utility Monitor for Detecting and Storing Power Line Disturbances
4,156,458	R. C. Chu, J. H. Eaton, and R. E. Meagher	Flexible Thermal Connector for Enhancing Conduction Cooling
4,156,745	M. Hatzakis and D. J. Webb	Electron Sensitive Resist and a Method Preparing the Same
4,156,796	D. M. O'Neal and D. V. Wildes	Programmable Data Processing Communications Multiplexer
4,156,818	T. W. Collins and K. R. Hense	Operating Circuitry for Semiconductor Charge Coupled Devices
4,156,920	S. Winograd	Computer System Architecture for Performing Nested Loop Operations to Effect a Discrete Fourier Transform
4,156,925	W. E. Tutt and V. D. Wyatt	Overlapped and Interleaved Control Store with Address Modifiers
4,156,936	G. W. Beall, M. S. Cohen, and M. H. Kryder	Apparatus and Method for Improved Operation of Bubble Devices
4,157,268	D. L. Bergeron and G. B. Stephens	Localized Oxidation Enhancement for an Integrated Injection Logic Circuit
4,157,269	T. H. Ning and H. N. Yu	Utilizing Polysilicon Diffusion Sources and Special Masking Techniques
4,157,454	W. Becker	Method and System for Machine Enciphering and Deciphering
4,157,554	D. J. Bahr and K. H. Burckardt	Multiple-Electrode Print Head for Metal Paper Printers
4,157,560	P. E. Cade	Photo Detector Cell

4,157,577	T. H. Porter, Jr. and R. E. Schopp	Rotatable Storage Apparatus with Digitally Responsive Circuitry for Track Selection
4,157,586	P. M. Gannon, J. D. Jones, D. M. Junod, R. L. Partridge, and T. R. Wright	Technique for Performing Partial Stores in Store-Thru Memory Configuration
4,157,590	D. G. Grice, D. F. Johnson, and A. Weinberger	Programmable Logic Array Adder
4,157,822	M. J. Miller	Document Feeder with Recirculation and Unloading
4,157,935	E. R. Solyst	Method for Producing Nozzle Arrays for Ink Jet Printers
4,158,072	A. Bohg, M. Briska, and B. Garben	Method for Making Connections Between Contacts
4,158,204	L. Kuhn, R. A. Myers, and R. L. Russo	Time Correction System for Multi-Nozzle Ink Jet Printer
4,158,237	S. K. Wiedmann	Monolithically Integrated Storage Cells
4,158,239	C. L. Bertin	Resistive Gate FET Flip-Flop Storage Cell
4,158,240	J. D. Lewis and J. A. Lowy	Method and System for Data Conversion
4,158,589	J. H. Keller and C. M. McKenna	Negative Ion Extractor for a Plasma Etching Apparatus
4,158,783	H. H. Berger and S. Wiedmann	Current Hogging Injection Logic with Self-Aligned Output Transistors
4,158,837	J. T. Zahorsky	Information Display Apparatus
4,158,890	D. M. Burland	Frequency Selective Optical Data Storage System
4,159,221	P. W. H. Schuessler	Method for Hermetically Sealing an Electronic Circuit Package
4,159,432	M. J. Burke, M. M. Siverling, and R. J. Wilfinger	Analog Signal Manipulation Using Charge Transfer Techniques
4,159,494	D. A. Evans, H. J. Greenberg, and F. E. Talke	Flexible Disk in Reversible Cartridge
4,159,517	C. Paradine and G. W. Robinson	Journal Back-up Storage Control for a Data Processing System
4,159,518	W. D. Draper, J. D. Gentry, M. T. Kawalec, and M. T. Laakso	Auto-Selection Priority Circuits for Plural Channel Adapters
4,159,915	N. G. Anantha, H. S. Bhatia, and J. L. Walsh	Method for Fabrication Vertical NPN and PNP Structures Utilizing Ion-Implantation
4,160,275	H.-S. Lee, W. D. Pricer, and N. G. Vogl, Jr.	Accessing Arrangement for Memories with Small Cells
4,160,691	O. R. Abolafia and J. Rasile	Etch Process for Chromium
4,160,893	R. M. Meyen, K. J. Puttlitz, K. Schink, and H. Wenskus	Individual Chip Joining Machine
4,160,987	R. H. Dennard and V. L. Rideout	Field Effect Transistors with Polycrystalline Silicon Gate Self-Aligned to Both Conductive and Non-Conductive Regions and Fabrication of Integrated Circuits Containing the Transistors
4,160,991	N. G. Anantha, H. S. Bhatia, and J. L. Walsh	High Performance Bipolar Device and Method for Making Same
4,161,432	D. J. Barclay and W. M. Morgan	Electroplating Chromium and Its Alloys
4,161,706	J. F. Dubil, A. M. Falcoz, R. J. Glaise, C. A. Jacquart, H. N. Leighton, V. Riso, and R. J. Wilfinger	Universal Transversal Filter Chip
4,161,752	A. R. Basilico	High Density Video Disk Having Two Pit Depths
4,161,753	J. H. Bailey and G. H. Ottaway	Video Recording Disk with Interlacing of Data for Frames on the Same Track
4,161,817	E. T. Bernardo, L. H. Faure, A. H. Johnson, and D. G. Pittwood	Method and Apparatus for Making a Semiconductor Device Mounting Element Embodying an Embedded Fan-Out Wire Arrangement
4,161,923	J. J. Abbott, W. J. Bernardelli, J. A. Thompson and A. H. Caudill	Electrophotographic Developer with Carrier Overflow Control
4,162,006	D. R. Wilson	Magnetic Diskette Magazine
4,162,007	M. E. Bothun, C. A. Larson, G. E. Lightner, and D. R. Wilson	Magazine-Lid Combination for Jacketed Magnetic Disks